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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,949	10/10/2001	Ryutaro Oka	Q66636	4803

7590 02/28/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

SY, MARIANO ONG

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,949

Applicant(s)

OKA, RYUTARO

Examiner

Mariano Sy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The disclosure is objected to because of the following informalities:

page 4, lines 19-20 "BRIEF DESCRIPTION OF THE DRAWINGS" should be written in a single line.

page 14, Abstract, All numerals should be enclosed in parenthesis.

Appropriate correction is required.

2. Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Moretti et al. (U.S. Patent Number 6,179,471 B1).

Re-claim 1 Moretti et al. disclose, as shown in fig. 1-3, a rolling bearing assembly having a temperature sensor 17 built therein, wherein bearing assembly comprises: stationary 1 and rotary 2 bearing rings one positioned inside the other; a sealing member 9, 10 secured to the stationary bearing ring; and the temperature sensor secured to the sealing member for measuring a temperature inside the bearing assembly.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moretti et al.

Re-claim 2 Moretti et al. disclose, as shown in fig. 1-3, wherein the sealing member includes a core metal 10 fitted to the stationary bearing ring, and a sealing device 9 integrated together with the core metal and wherein the temperature sensor is secured to the core metal in contact therewith. However Moretti et al. was silent to disclose the sealing device 9 is made of a rubber or resin. It would have been obvious to one of ordinary skill in the art to have the sealing device of Moretti et al. made of

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rubber or resin depending upon the size and application of the bearing assembly in order to save cost.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moretti et al. in view of Gomez et al. (U.S. Patent Number 5,833,371).

Re-claim 5 Moretti et al. disclose, as shown in fig. 1-3, wherein the temperature sensor is an electronic sensor, see col. 3, lines 35-36. However Moretti et al. was silent to disclose the temperature sensor is a chip-type laminar thermistor. Gomez et al. teaches the use of thermistor as temperature sensor in col. 1, lines 35-36. It would have been obvious to one of ordinary skill in the art to have merely utilized the known thermistor for use as a temperature sensor into the bearing assembly of Moretti et al., in view of the teaching of Gomez et al., in order to get an accurate reading of the temperature inside the bearing depending upon the type of application, cost, and availability.

8. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Genero et al. (U.S. Patent Number 5,372,435) discloses a rolling bearing seal assembly with a built-in sensor.

Adler et al. (U.S. Patent Number 5,381,090) discloses a bearing assembly with integrated rotation sensor and temperature measurement feature.

Ijuin et al. (U.S. Patent Number 5,399,027) discloses a rolling bearing for high speed rotation.

El-Ibiary (U.S. Patent Number 5,433,525) discloses a bearing housing with embedded temperature measurement device.

Ekdahl et al. (U.S. Patent Number 5,468,072) discloses a system and method for supporting a shaft or axle with temperature sensor.

Duffy et al. (U.S. Patent Number 5,642,105) discloses an arrangement for obtaining an indication of temperature within a bearing.

French et al. (U.S. Patent Number 6,161,962) discloses a bearing with sensor module.

Morimoto et al. (JP 58-50115 A) discloses a detection for temperature of divided type back-up roll for multistage cluster rolling mill.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariano Sy whose telephone number is 703-308-3427.

The examiner can normally be reached on Mon.-Fri. from 9:00 A.M. to 3:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder, can be reached on (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7687.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

m sy M. Sy

February 11, 2003

M. C. Graham
2-20-2003

**MATTHEW C. GRAHAM
PRIMARY EXAMINER
GROUP 310**